

# Space News **ROUNDUP!**

VOL. 4, NO. 18

MANNED SPACECRAFT CENTER, HOUSTON, TEXAS

JUNE 25, 1965

## President Visits Center, Honors Gemini IV Crew

### Apollo Boilerplate Pad Abort Test To Check Launch Escape System

The National Aeronautics and Space Administration will conduct an off-the-pad abort test with a dummy Apollo command module at White Sands Missile Range no earlier than next Tuesday, June 29.

The test will simulate an abort from ground level, using the Apollo launch escape system for propulsion. This type of abort would be necessary in an actual mission if serious trouble developed with the Saturn launch vehicle just before or during ignition of the powerful Saturn engines.

A similar test was conducted in November, 1963, at White Sands. But since that test, the Apollo command module has been equipped with a boost protective cover and canard subsystem. The cover protects the spacecraft windows from soot generated by the escape system's motors and is jettisoned with the launch escape system. The canards are wing-like devices near the top of the LES to provide aerodynamic stability of the spacecraft at low altitudes before parachute deployment.

Boilerplate 23A, the command module used for this test, is a refurbished spacecraft. It

was flown last December aboard a Little Joe II launch vehicle at White Sands in a test which simulated an abort at max q, or at the point of maximum aerodynamic pressures. It is the first Apollo boilerplate to be employed a second time for flight testing.

The flight, Mission PA-2, is the fifth in a series of Apollo launch escape tests.

The test vehicle will be launched from a special adapter at Launch Complex 36 of the White Sands Missile Range, powered by the launch escape rocket's 155,000 pounds of thrust.

The launch escape vehicle (LEV), consisting of the boilerplate command module and its launch escape system, will travel nearly 5,000 feet above the range, or to an altitude of about 9,000 feet above sea level. (The range is 4,036 feet above sea level at Complex 36.)

Eleven seconds after ignition is signaled from the blockhouse, wing-like control surfaces, called canards, will deploy near the top of the escape motor, causing the spacecraft to pitch aerodynamically to a blunt-end-forward position.

Three seconds later, the tower jettison motor will ignite, removing the tower and boost protective cover from the spacecraft. The forward (apex) heat shield is jettisoned 0.4 seconds later to uncover the parachute containers mounted on the "upper deck" of the spacecraft.

Dual drogue parachutes are deployed by mortars from the upper deck two seconds after the LES is jettisoned. They slow the spacecraft's descent, then disreef to stabilize the module in a blunt-end-forward position.

When the drogue parachutes are jettisoned, three pilot chutes are deployed to extract the three main parachutes from their containers. The main parachutes are deployed in reefed condition, then disreefed to lower the spacecraft to a gentle landing about one (1) mile from the launch site.

The entire flight sequence takes about one (1) minute, 30 seconds.

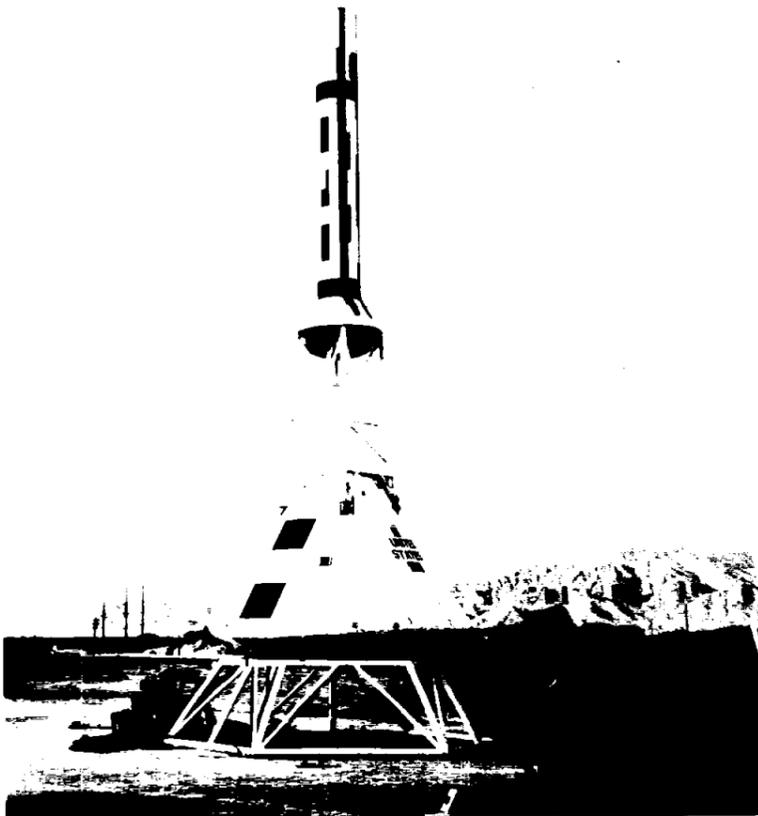
President Johnson and his family came to Houston June 11 to bestow honor on the crew of the Gemini IV mission and to pay his first visit to the Manned Spacecraft Center at the Clear Lake site.

The Presidential party arrived at Ellington AFB and went directly to the Center where the President addressed a crowd of nearly 5,000 employees of the space program.

He praised Astronauts James A. McDivitt and Edward H. White II for their contribution to America's space program and announced that he had nominated them for the rank of lieutenant colonel in the Air Force. Both held the rank of major. He also nominated Astronaut Virgil I. Grissom, also a major, for lieutenant colonel. Grissom was command pilot for the first manned Gemini flight.



**FIRST LADY GREETING**—The President's wife Lady Bird, greets Pat McDivitt as the Presidential party arrives for the ceremonies at Building 30. The President and daughter Luci (partly obscured) and NASA Administrator James E. Webb (right) look on approvingly.



**PAD ABORT TEST**—This configuration is the Apollo pad abort test that was successfully made at White Sands Missile Range, New Mexico in November 1963. The test scheduled for next week will include, in addition to the above, a boost protective cover and a canard system.



**PRESIDENTIAL VISIT CROWD**—Part of the crowd of nearly 5,000 space program employees at the Center are shown as they stood in the 90 degree sun and high humidity of a Texas afternoon, awaiting the arrival of President Johnson. (SEE MORE PHOTOS ON PAGE 2)

# Astronauts McDivitt And White Have Busy Schedule After Gemini Flight



**NEW LIEUTENANT COLONELS**—President Johnson is shown as he presented lieutenant colonel leaves to Astronauts Edward H. White II, Virgil I. (Gus) Grissom, and James A. McDivitt. Photographers surround the speaker's stand as they record the event on film.

Astronauts James A. McDivitt and Edward H. White II had a busy round of activities this past week with parades, honors and hometown welcomes plus a visit to the Paris Air Show in France.

After their meeting with President Johnson here at the Manned Spacecraft Center Friday, June 11, the two astronauts spent the weekend with their families before going to Chicago for a parade on Monday. Their families accompanied them.

Tuesday, McDivitt and White were presented with honorary doctorates from their alma mater the University of Michigan at Ann Arbor, Mich.

Wednesday, McDivitt and his family were given a hometown welcome in Jackson, Mich., and White and his family went to San Antonio, Tex., for a hometown welcome.

Thursday they both went to

Washington, D. C., for ceremonies with the President on Friday.

Saturday the two astronauts and their wives were at the Paris Air Show in Paris, France. The McDivitt and White children stayed in Washington at the White House while their parents were in Europe. Vice President Humphrey and his wife accompanied the astronauts and their wives on the week long tour of activities.

Monday the group returned to the United States and Astronauts McDivitt and White reported for work at the Manned Spacecraft Center on Tuesday.



**WAITING FOR PRESIDENT**—One of the spectators waiting to see President Johnson June 11, uses a copy of the Roundup to get a little relief from the rays of the sun on the hot and humid Texas afternoon.



**PRESIDENT SHAKES HANDS**—President Johnson shakes hands with people outside Building 30 just after his arrival to speak to the employees of the Center.



**GIFT FOR PRESIDENT**—President Johnson is presented photographs of the Gemini IV mission by Astronauts James A. McDivitt and Edward H. White as NASA Administrator James E. Webb (left), and Dr. Robert Seamans, NASA associate administrator look on.



**TALK BY PRESIDENT**—President Johnson is shown as he addressed the crowd of nearly 5,000 space employees at MSC on June 11. The guests of honor are seated to the President's right.



**PRESS CONFERENCE**—Astronauts James A. McDivitt and Edward H. White talk to Dr. Robert Seamans, NASA associate administrator (center) and Dr. Robert R. Gilruth, director, Manned Spacecraft Center (left), after the press conference for the two astronauts on June 11.



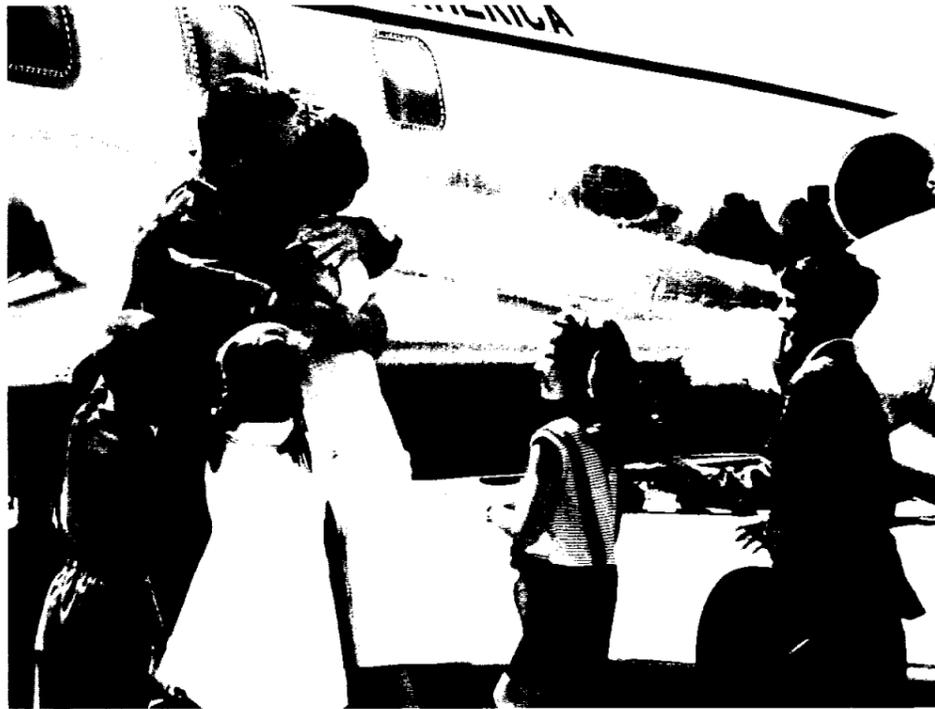
**PRESIDENTIAL PARTY**—President Johnson and his family along with NASA officials are shown during the ceremonies June 11 outside of Building 30. NASA Administrator James E. Webb was giving an introduction at this time for the President.

**OH NO!**—Astronaut Edward H. White II seems to be saying Oh No!, in the top photo as he gets the word of his promotion to lieutenant colonel from President Johnson at the Center during ceremonies on June 11. In the second photo he gets a hug and kiss from his wife Pat and then breaks forth with the happy look in the bottom photo.

# Families And Friends Welcome Gemini IV Crew Home



**CHILDREN'S WELCOME**—The children of Astronauts Edward H. White II (left) and James A. McDivitt (right) give their dads a welcome home hug.



**WELCOME HOME**—Astronaut James A. McDivitt is given a welcome home embrace by his wife and children as the White children rush to greet their father.



**McDIVITT FAMILY**—Astronaut James A. McDivitt and wife Pat with their children Patrick, Michael and Ann Lynn pose with McDivitt's parents Mr. and Mrs. James McDivitt of Jackson, Mich.



**HOMECOMING KISS**—Astronaut Edward H. White II gets a big welcome home kiss from his wife as his daughter Bonnie stands at his side.



**WHITE FAMILY**—Astronaut Edward H. White, his wife Pat and children Bonnie and Edward pose for a photo with White's parents Maj. Gen. and Mrs. Edward H. White of St. Petersburg, Fla.



**WELL DONE**—A sign carried by two of the greeters in the crowd proclaimed a well done by the Gemini IV crew.



**CONGRATULATIONS**—Dr. Robert R. Gilruth, director, Manned Spacecraft Center and Charles W. Mathews, manager, Gemini Program Office, extend greetings and congratulations to Astronaut James A. McDivitt.

## Space News Of Five Years Ago

**JUNE 25, 1960**—Aerospace Corp., a nonprofit civilian organization to manage engineering, research, and development aspects of missile and military space programs, was established by the USAF.

**JUNE 26, 1960**—A six-minute message received by Jodrell Bank, England, was the last communications received from PIONEER V, then 22.5-million miles from earth moving at a relative velocity of 21,000 mph. Since March 11, 1960, when launched, PIONEER V traveled some 180-million miles.

**JUNE 27, 1960**—As a complement to the Mercury spacecraft reliability program, a decision was made that one production spacecraft would be withdrawn from the operational program for extensive testing. The test environment would involve vacuum, heat, and vibration conditions. This test series was later designated "Project Orbit."

**JUNE 28, 1960**—The Smithsonian Institute awarded its highest honor, the Langley Medal, to Robert H. Goddard, posthumously.

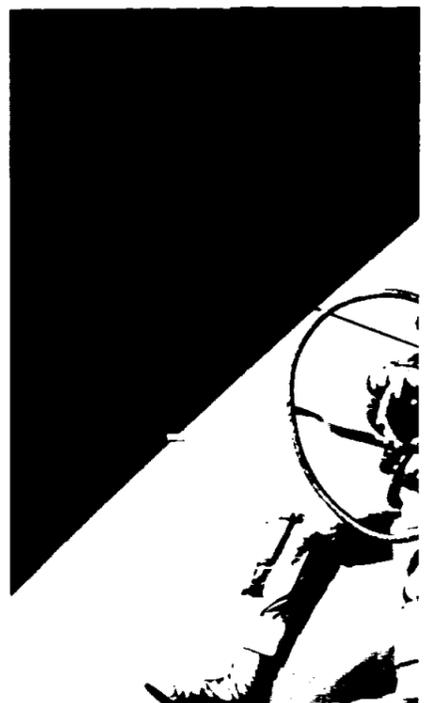
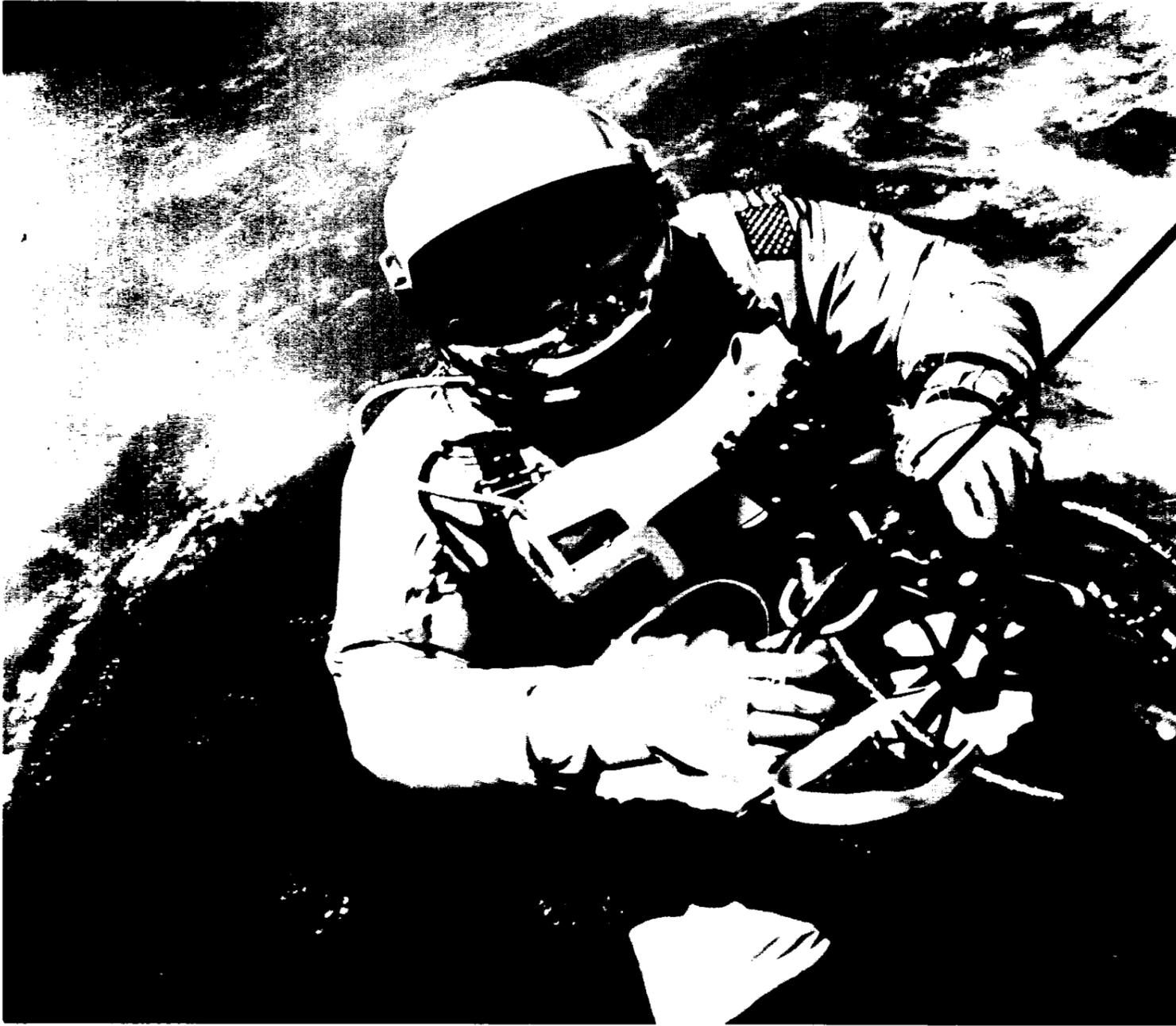
**JUNE 29, 1960**—TIROS I ended its operational lifetime, transmitting a total of 22,952 picture frames of the earth's cloud cover and completing 1,302 orbits since launch April 1, 1960.

**JUNE 30, 1960**—Mercury spacecraft no. 2 was delivered to the Marshall Space Flight Center, Huntsville, Ala., for compatibility tests with the Redstone launch vehicle, and was shipped to Cape Canaveral on July 23, 1960.

**JULY 1, 1960**—The NASA George C. Marshall Space Flight Center, with Dr. Wernher von Braun as its director, officially opened with formal transfer to NASA from the Army Ballistic Missile Agency at Redstone Arsenal, Huntsville, Ala.

# Astronaut White's Gemini IV Extravehicular Activities Pro

GEMINI IV EVA—Views of Astronaut Edward H. White as he performed extravehicular activities (EVA) while the Gemini IV spacecraft made its third revolution around the earth on June 3, are shown on these two pages.



# Wide Spectacular Subject For Astro-Photographer McDivitt

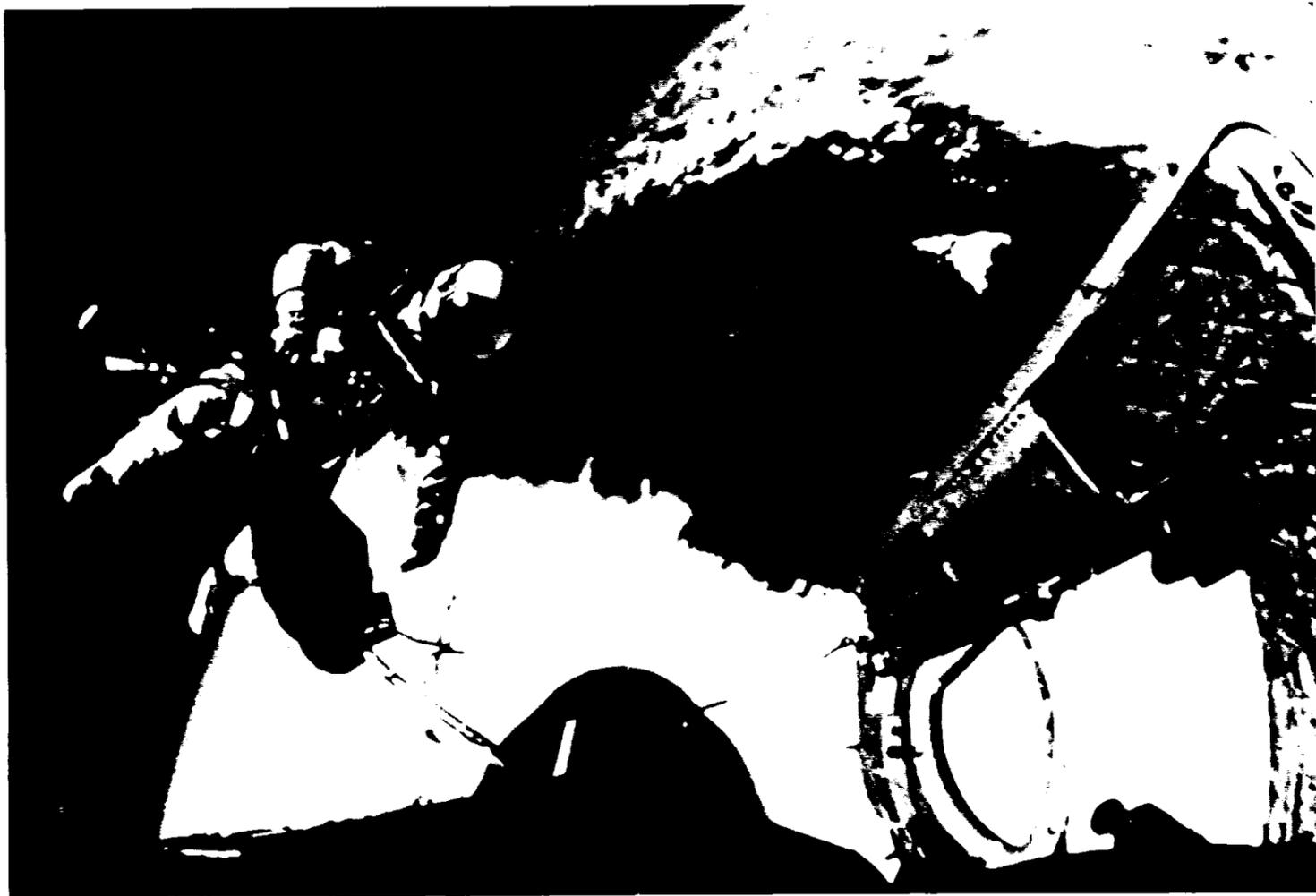
White, pilot on the flight that lasted four days, is shown outside the spacecraft with Earth and the white cloud cover in the background. He was outside the spacecraft as the flight passed over the United States. White's gear

included a specially designed space suit to protect him from heat and possible meteoroids, a gold plated visor to protect him from the sun's unfiltered rays, an emergency oxygen

chest pack, a hand-held self-maneuvering unit with which to control his movements outside the spacecraft, and a 35mm camera to take photographs. White remained out-

side the spacecraft for 21 minutes secured by a 25-foot umbilical with a 23-foot tether line, both wrapped in gold tape to form one cord. Astronaut James A. McDivitt,

command pilot, remained inside the spacecraft during the activity and took these photographs of White plus movies. Lower right photo taken by hatch camera.



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Director . . . . . Robert R. Gilruth  
Public Affairs Officer . . . . . Paul Haney  
Editor . . . . . Milton E. Reim  
Staff Photographer . . . . . A. "Pat" Patnesky

## Welcome Aboard

During the last reporting period, 134 new employees joined the Manned Spacecraft Center.

**Center Medical Office:** Huey B. Crocker (Cape Kennedy, Fla.), and Elizabeth M. McLoud.

**Public Affairs Office:** Henni-etta Boulard, Joseph A. George, Judy F. Dement, Elizabeth A. Jezewski, and Mary K. Sweda.

**Administrative Services Division:** J. Chris Floyd, Nancy A. Goddard, Ellis B. Guess, Robert R. Lausch, Louis G. Lopez, Janice A. Maynard, William G. Nakunz, Theodore H. Osborne, R. V. Pompee, and Diane L. Reavis.

**Procurement and Contracts Division:** Carolyn A. Cate, Judith K. Downing, Helen A. Kuykendall, Juanita A. Sandoval and Margaret E. Waln.

**Technical Services Division:** Herman R. Armer, David L. Baines, Earl W. Hatcher, Doyle Ivory, Eugene M. Lee, Peter R. Mallett, Jennifer E. Nicols, Marcelo Saucedo, and Harriette J. Whittemore.

**Photographic Laboratory:** Julian Cantu Jr.

**Management Services Division:** Julia A. Andrews, Mary D. Ewing, Ellen M. Gracey, Mary Jo Kay, Raymond H. McKay, James A. Mathews, Ivan R. Moore Jr., Howard O. Isgate, S. Ann Samuel, Roy A. Watlington, Gayla L. Wigley, and Alita M. Zaepfel.

**Engineering Division:** John A. Comeaux, Paul Ramirez, Cary A. Trlica, and George W. Wells.

**Personnel Division:** Carole

K. Browdy, Carolyn Burns, Loweta L. Clem, Sharon L. Cordes, Deborah A. Edwards, Drucilla J. Hamrick, Nancy A. McQuary, Eileen Molley, Barbara Pearson, Sally E. Petty, Elaine P. Strack, Nancy Jo Tapp, and Karen L. Trask.

**Astronaut Office:** Velores Hayes, Joyce M. Foreman, and Diane C. Shirley.

**Resources Management Division:** Dorinda G. Withrow.

**Flight Crew Support Division:** Dennis L. Bentley, Humberto J. Davila, Edwin A. Prince, Wayne L. Pritz, Peter C. Sakowski, Eddie S. Miles, Melinda A. Spencer, and Joyce A. Tolbert.

**Crew Systems Division:** James C. Adams, Robert E. Covey, James L. Garrepy, Steve N. Martin, and Pliny C. Smith.

**Information Systems Division:** Ronald H. Ellison, and Linda K. Ankrom.

**Computation and Analysis Division:** Lynda B. Collins, Joe W. Fortson, Wanda B. Hubbard, and Rachel A. Terrell.

**Instrumentation and Electronic Systems Division:** Delia J. Ante, John H. Christian, James W. Moore, Richard K. Sorrel, and Richard W. Armstrong.

**Guidance and Control Division:** Wanda R. Bradberry.

**Propulsion and Power Division:** Harry J. Cazemier, Thomas J. Graves, Betty J. Rippey (Tullahoma, Tenn.), David R. Saucier, Robert K. Williams, and Alfred L. Blunt.

**Structures and Mechanics Division:** Kenneth R. Johnson, and Brenda J. Rylander.

## SPACE QUOTES

ALL MANKIND SHOULD EXPLORE FRONTIER OF SPACE. President Lyndon B. Johnson, remarks, NASA Headquarters, Washington, D. C., Feb. 25, 1965.

"Our purpose is not, and I think all of you realize never will be, just national prestige. Our purpose remains firmly fixed on the fixed objective of peace. The frontier of space is a frontier that we believe all mankind can and should explore together for peaceful purposes, and I have enunciated that doctrine in all the forums in which I have been allowed to trespass. This has been and is going to continue to be the policy and the purpose of the United States Government."

**Advanced Spacecraft Technology Division:** Edward S. Donoghue, Donald M. Hoffpauir, Sylvia M. Huron, Natalie S. Kovar, L. Dwyne L. LaFleur, David S. McKay, John A. Thorson, Charles H. White, and Coel L. Winn.

**Assistant Director for Flight Operations:** John S. Blair, Phyllis A. Hazelett, Kathryn T. Hinton, Patricia Jones, Sharron W. Mitchell, and Diana R. Monroe.

**Flight Control Division:** Dale A. Ashford, Gayla F. Blair, Alan L. Briscoe, Gilbert G. Hopkins, William J. Moon, Gwendolyn L. Spriggs, and Charles W. Thornton.

**Mission Planning and Analysis Division:** Luzette M. Chevalier, Lazarus Gonzales, Jamie L. Legg, Stafford F. Lucky, James H. Mashburn, and Bernard F. Morrey.

**Flight Support Division:** John C. Lyon, Howard L. Marler, and Vera C. Yager.

**Apollo Spacecraft Program Office:** D. Gail Blackburn, Peggy S. Miller, and Ramon Valadez.

**White Sands Missile Range:** Robert J. Leser, and Robert W. Manning.

## MSC PERSONALITY

### Gemini 'Space Gun' Invented By MSC's Harold I. Johnson

Astronaut Edward H. White didn't take that first step into space alone—he was accompanied from his Gemini IV spacecraft by the inventiveness of Harold I. Johnson.

Johnson, a 45-year-old engineer at the NASA Manned Spacecraft Center, developed the now famous maneuvering unit, or "space gun," that White propelled himself with in space.

He also invented a five-degree of freedom air-bearing simulator for White to practice his "space walk" on, and taught the astronaut how to maneuver outside an orbiting spacecraft.

White, using Johnson's invention, became the first man to maneuver at will outside a spacecraft last June 3. He literally flew—propelled by tiny gas jets—over, under and around the orbiting Gemini IV with Command Pilot James A. McDivitt at the controls inside.

And while White floated in free space, Johnson exulted here on earth.

He had been working toward that day for seven years.

But long before Johnson thought of space and space guns, he roamed the spacious flatlands of Illinois with fishing poles and shotguns, about 30 miles from his birthplace, Joliet.

He tromped the Kankakee River country after rabbits and quail with his older brother, Dave, and fished from a homemade skif for weeks at a time, sleeping nights in a tent on the river banks.

In winter there was school, and a pastime that produced "millions" of balsa model airplanes, propelled by rubber bands. He was a superior student at Joliet Township High School, but his mind frequently wandered down to the Kankakee River in search of summertime.

He met 12-year-old Kathryn Jeanne Hayes from nearby Lorenzo one summer, but he was 17 and unimpressed. Eleven years later they were married.

By then, Johnson was an aeronautical engineer with the National Advisory Committee on Aeronautics at Langley Research Center, Virginia. NACA became NASA, the National Aeronautics and Space Administration, in 1958.

Those 11 years saw Johnson graduate at the top of his class of 200 from Joliet Junior College, then from the University of Michigan with a BS degree before joining NACA in 1941.

At Langley, Johnson worked in the aircraft stability and control field, helping define requirements for fighter plane handling qualities. He worked in the Flight Research Division's Stability and Control Branch perfecting control requirements for P-39, P-40 and P-63 fighters.

His boss in those days was Robert Gilruth, now director of the Manned Spacecraft Center.

Johnson's inventions, more than 20 years before the advent of the Hand-Held Self Maneuvering Unit (HHSMU) used by Astronaut White, included the

first machine to duplicate short-period oscillations of aircraft—oscillations like the little jolts turbulence imposes on planes. Earlier tests had to be done in actual flight to determine the dynamic stability of aircraft, and sometimes proved costly, if not fatal.

He also invented a device to give pilots an artificial "feel" for control pressures removed by servo mechanisms in high-performance fighter planes.



HAROLD I. JOHNSON

And in 1958, Johnson invented a space simulator, operated by a man using a compressed air gun for maneuverability—the forerunner of Ed White's "Space gun."

White at Langley he also invented the ALFA (Air Lubricated Free Attitude) trainer, a three-degree freedom simulator used by Project Mercury astronauts. It was a spacecraft mock-up, floating on a cushion of air, controlled by jets of gas providing dynamics identical to those of a spacecraft in flight.

There were many others, but none so dramatic as the HHSMU White told the world about during his extra-vehicular activity in space June 3.

Johnson, with design help from William C. Huber of MSC's Engineering Division, perfected a device that virtually propelled the United States to a dramatic space "first."

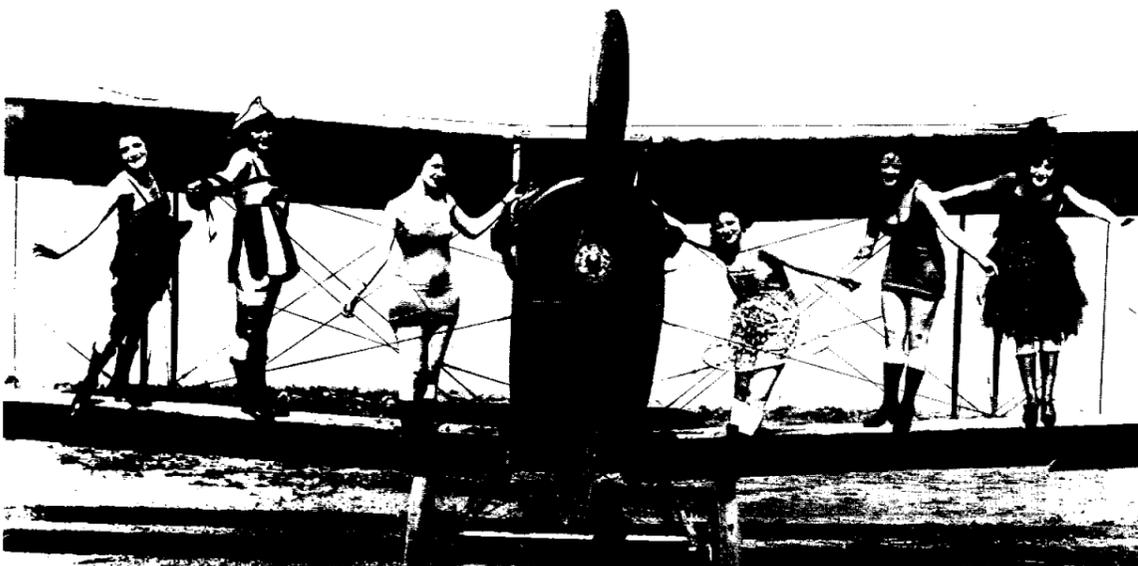
The compact, oxygen-driven jet unit was built at MSC by the Technical Services Division, under the supervision of William S. Lee. It was designed, four units built and the astronauts fully trained in fewer than three months.

But for 24 years Johnson has devoted his life to aircraft and the space program. Even before high school graduation he knew he wanted to be an aeronautical engineer.

He still hunts and occasionally goes fishing, but the summer-long trips to the Kankakee River are replaced by infrequent motor trips to West Texas with Kathryn and their three children: Mary Dawn 15; Mark Harold 14; and Lynellen 9.

They live in Seabrook, Tex., a few miles from Manned Spacecraft Center, where he is head of the Advanced Planning Office, Flight Crew Support Division.

## On The Lighter Side



### Apollo Prime And Backup Crews In Training?

(EDITOR'S NOTE: What is purported to be a training photo of the prime and backup crews for the first Apollo mission, was recently sent to the Roundup by a representative of the Gemini Program Office. Maybe these are the first lady astronauts?)

# Space News ROUNDUP!

MANNED SPACECRAFT CENTER, HOUSTON, TEXAS

## EMPLOYEE NEWS

### Two Receive Service Awards



FIFTEEN-YEAR AWARDS—Preston H. Allen (l.) and John E. Williams (r.), both aerospace technologists with the Office of Vehicles and Missions, Gemini Program Office were presented 15-year Government Service Awards recently. The presentations were made by Willis B. Mitchell (c.), manager, Office of Vehicles and Missions.

### MSC-EAFB SOFTBALL LEAGUE

Standings as of June 11

Fast Pitch

TEAM	WON	LOST
2578th AB SQ	6	0
Rams	5	1
CG-Choppers	4	1
Lone Stars	3	1
FCD	4	2
Colt 38's	3	2
Weather	3	2
ID	3	3
Comm-SQ	3	3
IBM	2	2
Wolfs	2	2
Hustlers	2	4
Lockheed	1	3
Rag Mops	1	5
LoBos	0	5
Firemen	0	6

Game Scores

Rams-7	Rag Mops-1
CG-Choppers-13	Comm-SQDN-2
Weather-7	Colt 38's-0
2578th AB SQ-11	LoBos-6
Wolfs-13	Hustlers-11
Lone Stars-22	Firemen-5
FCD-5	ID-4
CG-Choppers-18	Rag Mops-6
Rams-20	Weather-10
2578th AB SQ-7	Comm-SQDN-1
Colt 38's-7	ID-0
Comm-SQDN-5	FCD-3

Rams-7	Firemen-0
CG-Choppers-18	Hustlers-9
Weather-7	IBM-0
2578th AB SQ-12	Lockheed-7
Wolfs-10	Rag Mops-7
Lone Stars-17	LoBos-11

Slow Pitch

TEAM	WON	LOST
Animals	6	0
Hustlers	5	1
MPAD-RAB	3	1
RMD-Plus	3	1
8-Balls	3	1
Mis-Fits	4	2
CSD	4	2
Mets	3	2
Machinists	2	3
Virginians	2	4
LRD	1 1/2	3 1/2
Lunartechs	1	3
Odds-Ends	1	4
Fabricators	1	4
Moonrakers	1	4
USCG(H)	1/2	5 1/2

Game Scores

Virginians-7	USCG(H)-0
Moonrakers-7	Odds-Ends-0
LRD-17	Fabricators-5
Animals-10	Machinists-0
CSD-27	Lunartechs-10
Hustlers-3	Mets-2
Virginians-9	Moonrakers-6
LRD-0	USCG(H)-0
Animals-27	Odds-Ends-10
Hustlers-18	Fabricators-12
Mis-Fits-12	USCG(H)-2
CSD-15	Moonrakers-9
8-Balls-7	LRD-0
Animals-14	MPAD-RAB-8
Lunartechs-12	Virginians-11
RMD-Plus-7	Machinists-6
Mis-Fits-19	RMD-Plus-4

### Camera Club Meeting Scheduled For July 8

The Camera Club's next meeting will be held July 8 and business to be discussed will be next year's operation and the expenditure of this year's funds.

Meeting place will be at Ken Cashion's residence and members are invited to bring their winning slides from this year's contest for review. Those planning to attend should call HU 3-2637 for complete information.

## \$30,000 Set Aside By Exchange Council For MSC Employee Recreation Center

The NASA Exchange Council here at the Manned Spacecraft Center adopted a resolution early this year which set aside \$30,000 for an employee recreation center.

Location of the recreation center will be at the Clear Lake Site and the money for its construction is being provided by the NASA Exchange Council from profits.

The Exchange Council, headed by W. Augustus Bower and a board composed of MSC employees, is responsible for

### Rod-Gun Club Member State Pistol Champion; Rifle Competition Held

Recent activities of the MSC Rod and Gun Club have included holding a rifle match and taking part in the Texas State Pistol Matches at Ft. Worth, with one of the members taking the State Championship.

Winners of the Club's May 31 large bore shooting match at the Bayou Rifle Range were announced.

Group size and varmint target shooting were the two competitive matches. First and second place winners in the group size match were Joe Haywood and Hoyt McBrayer. In the varmint match, Hoyt McBrayer was first and Dewey Hydrick was second.

Members of the Club competed in the Texas State Pistol Matches May 29-30 at Ft. Worth, with Gordon Rysary becoming the Texas state pistol champion for 1965.

Rysary's shooting was in the NRA sharpshooter class and he accumulated 13 of 17 medals including the Grand Aggregate, which made him the civilian state champion for 1965.

The next quarterly meeting of the Rod and Gun Club will be held at Ellington AFB Bldg. 336, at 7:30 p.m., June 14. A program which includes the movie "How to Reload Fired Cartridges" is planned for the meeting. All members and interested individuals are urged to attend.

### Toastmistress Install New Slate Of Officers

The installation meeting of the Ellington Toastmistress Club was held Tuesday, June 15, 1965, at the King's Inn Restaurant, Houston.

Juanita Kilgarlin, chairman of Council IV, served as installing officer for the new officers who are: Mel Schmerler, president; Ruth Warren, vice president; Bobbie Wright, secretary; Marilyn Morehouse, treasurer; and Connie Bohl, club representative. All officers will serve from July to December 1965, except for Mrs. Bohl who will serve from July 1965 to June 1966.

The meeting was highlighted by a speech by Cookie Underwood entitled "Just for Dad," a lighthearted speech dedicated to Father's Day. Millie Rogers was topicmistress and Virginia Thomson was toastmistress.

the operation of the Cafeteria and various vending machines located throughout the Center. The profits from these operations go to the Exchange Council.

For the year that ended Dec. 31, 1964, the Exchange Council had a net income from operations, other than the cafeteria, of \$26,825.04. The cafeteria had total sales of \$268,104.91 during 1964, ending the year with a net loss of \$1,679.99.

The cafeteria could have shown a profit last year had it not provided, at no cost, food worth \$3,314.65 for the Em-

ployee Activities Association Picnic last fall. This support helped make the picnic possible.

For those who may have wondered who feeds the MSC ducks, the Exchange Council had an expense item which reads "Duck Feed \$56.40." Bower said the feed bill for this year will probably run nearer \$100. "The duck population has increased," he stated.

To provide an accounting of how the MSC Exchange Council funds were handled the following financial statements are published at the request of the Council.

#### NASA EXCHANGE—MSC STATEMENT OF EARNINGS AND SURPLUS For The Year Ended Dec. 31, 1964

INCOME:	
Sale of books	\$753.87
Less: Cost of books sold	742.00
Gross profit on sale of books	\$ 11.87
Automation Foods, Inc.	16,107.60
Houston Coca-Cola Bottling Co.	7,459.79
Pepsi-Cola Bottling Co.	5,984.84
Southwestern Bell Telephone Co.	263.05
Interest income	347.06
Wall Street Journal	74.96
Houston Chronicle	32.20
TOTAL INCOME	\$30,281.37
EXPENSE:	
Accounting	343.50
Bond expense	424.50
Duck feed	56.40
Insurance	1,387.37
Office supplies	68.56
Supplies for resale	587.50
Salaries	350.00
Utilities—vending machines	238.50
TOTAL EXPENSES	3,456.33
NET INCOME FROM OPERATIONS:	26,825.04
Deduct: Contribution to Employees Activity Association	2,255.50
NET INCOME FOR THE PERIOD:	24,569.54
Add: Surplus December 31, 1963	11,061.42
SURPLUS DECEMBER 31, 1964—	\$35,630.96

#### MSC CAFETERIA STATEMENT OF EARNINGS AND SURPLUS For The Eleven Months Ended Dec. 31, 1964

INCOME:	
Sale of food	\$268,073.08
Sale of grease	31.83
Total Sales	\$268,104.91
FOOD COST:	
Beginning inventory	-0-
Purchases	128,867.43
Total	128,867.43
Less: Ending inventory	8,933.09
Total Food Costs	119,934.34
GROSS PROFIT ON SALES:	148,170.57
OTHER COSTS OF OPERATIONS:	
Supplies:	
Beginning inventory	-0-
Purchases	4,208.70
Total	4,208.70
Less: Ending inventory	578.69
Total Cost of Supplies	3,630.01
Accounting	1,100.00
E.A.A. picnic	3,314.65
Insurance	2,487.50
Laundry service	4,558.42
Office supplies	448.70
Purchases	1,464.29
Salaries	128,556.65
Taxes—payroll	4,290.34
Total Expenses	149,850.56
NET (LOSS) FROM OPERATIONS	\$ (1,679.99)

### Ground School Course Planned By Aero Club

The Aero Club plans to start another session of the Private Pilot's Ground School Course within the next two weeks if enough interested parties sign up to take the course.

Audio-visual in nature, the course is informative and useful

as a refresher for "old timers" as well as being quite helpful for those taking the examination for private pilot's license.

All persons interested in taking the course should call Ernest Weeks, the Club's training officer, at Ext. 5361.

The Aero Club meets the first Monday evening of each month in the Building 30 auditorium.

### Duplicate Bridge Club Winners Announced

Winners of the Duplicate Bridge Club Special Master Point Charity Game on June 15 were: North-South, J. Arnette and J. LaMarche, first; Bob and Dolores Sheridan, second; East-West, Charlie Brown and Lee Pearson, first; Ray Lynch and Paul Swanzy, second.

At the rating point game on June 8, the winners were Charlie and Eugenia Brown in a three-way tie with Gay Walker and Tom Moore and Bob and Dolores Sheridan.

The regular monthly club master point will be held July 6 and there will also be a special master point game on July 20. The July 20 session will be an Individual Championship event.

# Space News ROUNDUP!

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### MSC's Summer Intern Program In Third Year, Has 46 Students

The third aerospace summer intern program will begin at the Manned Spacecraft Center, July 1, when 46 interns will come aboard for a summer of work and study.

Twenty-eight universities and colleges will be represented in the program which will include five cadets from the U. S. Air Force Academy in Colorado.

In 1963, the program was initiated with 26 interns and in 1964, 40 were in the program. During the first two years, the program gained stature in the eyes of the university faculties, a Training Branch spokesman stated. There were about 170

highly qualified applicants for the 1965 program.

The engineer and scientific interns (34 in all) will be assigned projects in the various engineering and science organizations, and attend the Engineering Design and Operations of Manned Spacecraft Seminar Series three days each week.

Administrative interns will be assigned administrative project work, and attend dinner seminars weekly. Both seminar series are led by key MSC engineers, scientists, and administrators. The program is administered by the Personnel Division's Training Section.

### Onboard Recovery Ship

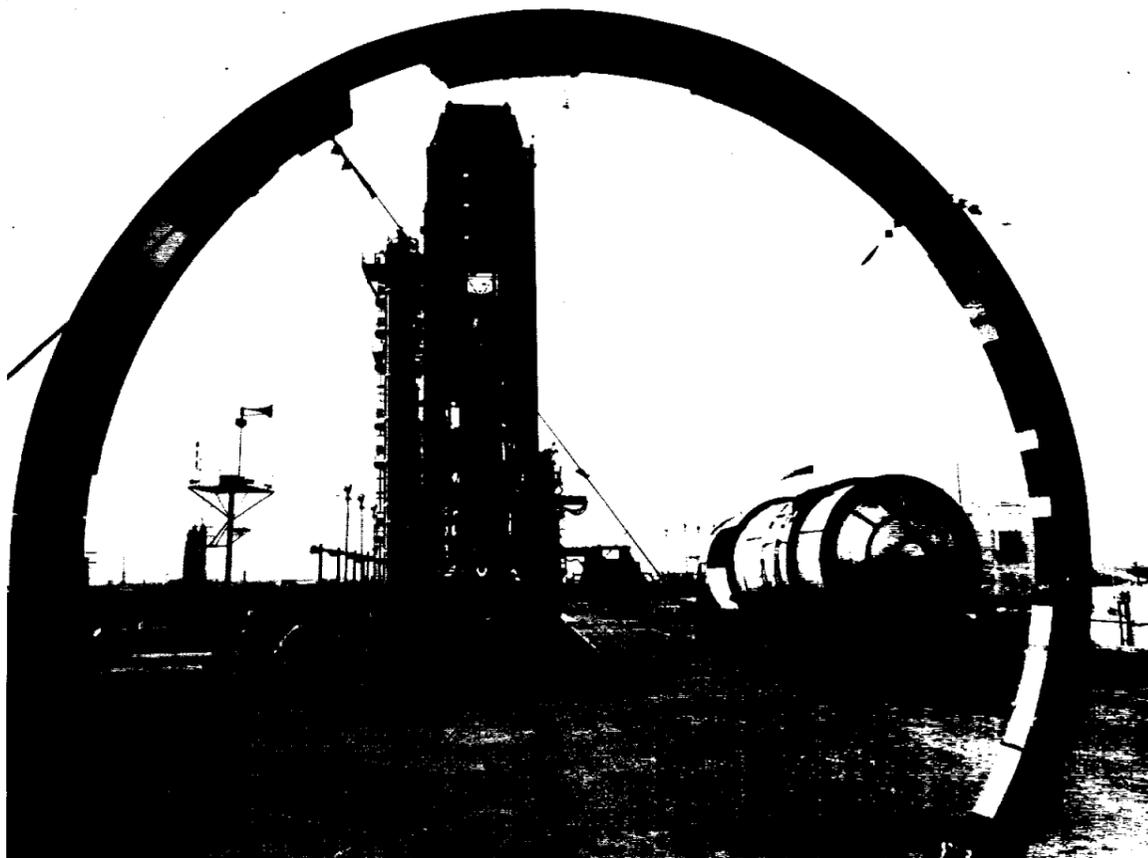


ABOARD THE USS WASP—After a bath, shave and some down to earth eating, Astronauts Edward H. White II (left) and James A. McDivitt stand in the spacecraft that was their home in space for 97 hours and 56 minutes beginning at 10:16 a.m., EST, June 3 as they lifted off Pad 19 at Cape Kennedy. The Gemini IV mission carried them 62 revolutions around the Earth and over 1,600,000 miles through space before they touched down at 12:12 p.m., EST, about 400 miles east of Cape Kennedy in the Atlantic.



DINING WITH WASP CREW—Astronauts James A. McDivitt and Edward H. White II, go through the chow line in the crews dining hall on board the USS Wasp. They dined with the crew after completing their Gemini IV four day flight.

### Gemini V Launch Vehicle Erected



GEMINI V PREPARATIONS—The erection of the launch vehicle for the Gemini V mission was begun on June 7, the day that Astronauts James A. McDivitt and Edward H. White II completed the Gemini IV mission. Here the first stage is erected and the second stage is shown at the right. The scene is seen through the first stage transporter at Cape Kennedy's Pad 19.

### USS Wasp Welcomes Gemini IV Crew Aboard



GT-IV WELCOME—Red carpet treatment was accorded the Gemini IV space twins, Astronauts James A. McDivitt and Edward H. White II, when they came aboard the aircraft carrier USS Wasp. Here they are shown as they walk along the red carpet.

### Subjects Of MSC's Technical Symposium To Be Gemini IV And Pegasus Program

Gemini IV and the Pegasus program will be the subjects of the MSC Technical Symposium scheduled for 6:15 p.m. Monday, June 28 in the Building 1 Auditorium.

Admission to MSC's Technical Symposium requires a security clearance at the confidential level. Contractors with permanent MSC badges are invited to attend this meeting, and must meet the same security

requirements given above.

The program will be as follows:

1. "Pegasus Spacecraft" by Dr. W. G. Johnson, Marshall Space Flight Center.
2. "Results of Project Pegasus" by Dr. Ernst Stuhlinger, Marshall Space Flight Center.
3. "GT-4 Extravehicular Suit" by James V. Correale, Crew Systems Division.
4. "GT-4 Hand-Held Manu-

vering Unit, by Harold I. Johnson, Flight Crew Support Division.

5. "GT-4 Film, 'Astronaut White's Excursion in Space'".

For additional information on the symposium, call Ext. 5131.

The meeting will be preceded by a dinner in the cafeteria from 4:45 to 6:15 p.m., with the symposium scheduled to begin at 6:15 and last until 8:15 p.m.